

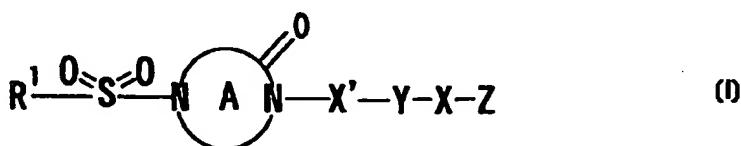
PCT

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国際事務局
特許協力条約に基づいて公開された国際出願

(51) 国際特許分類6 C07D 241/08, A61K 31/495, C07D 401/12, 401/14, 403/12, 403/10, 405/12, 405/14, 409/10, 409/12		A1	(11) 国際公開番号 WO99/40075 (43) 国際公開日 1999年8月12日(12.08.99)
(21) 国際出願番号 PCT/JP99/00470			
(22) 国際出願日 1999年2月4日(04.02.99)			
(30) 優先権データ 特願平10/24833 特願平10/317205	1998年2月5日(05.02.98) 1998年11月9日(09.11.98)	JP JP	(74) 代理人 弁理士 朝日奈忠夫, 外(ASAHINA, Tadao et al.) 〒532-0024 大阪府大阪市淀川区十三本町2丁目17番85号 武田薬品工業株式会社 大阪工場内 Osaka, (JP)
(71) 出願人 (米国を除くすべての指定国について) 武田薬品工業株式会社 (TAKEDA CHEMICAL INDUSTRIES, LTD.)(JP/JP) 〒541-0045 大阪府大阪市中央区道修町四丁目1番1号 Osaka, (JP)			(81) 指定国 AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, 欧州特許 (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG), ARIPO特許 (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM)
(72) 発明者 ; および (75) 発明者 / 出願人 (米国についてのみ) 多和田絢之(TAWADA, Hiroyuki)(JP/JP) 〒569-1032 大阪府高槻市宮之川原1丁目11番1号 Osaka, (JP) 伊藤文雄(ITOH, Fumio)(JP/JP) 〒560-0882 大阪府豊中市南桜塚4丁目13番24-402号 Osaka, (JP) 坂野 浩(BANNO, Hiroshi)(JP/JP) 〒563-0029 大阪府池田市五月丘5丁目1番3号 Osaka, (JP)			添付公開書類 国際調査報告書

(54) Title: SULFONAMIDE DERIVATIVES, PROCESS FOR PRODUCING THE SAME AND UTILIZATION THEREOF

(54) 発明の名称 スルホンアミド誘導体、その製造法及び用途



(57) Abstract

Compounds represented by general formula (I) or salts thereof and prodrugs of the same which have an inhibitory effect on activated blood coagulation factor X and thus are useful as anticoagulating agents. In formula (I), R¹ represents a hydrocarbyl or heterocyclic group each optionally substituted; the ring A represents a divalent nitrogen-containing heterocycle group optionally further substituted; X' represents optionally substituted alkylene; Y represents an optionally substituted divalent cyclic group; X represents a bond or optionally substituted alkylene; and Z represents (1) optionally substituted amino, (2) optionally substituted imidoyl, or (3) an optionally substituted nitrogen-containing heterocyclic group.

FILE COVERS 1967 - 9 Jan 2001 VOL 134 ISS 3
 FILE LAST UPDATED: 8 Jan 2001 (20010108/ED)

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L4 8 L3

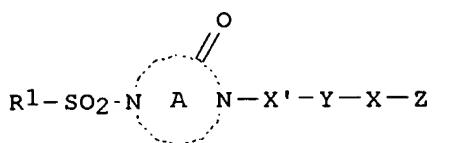
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L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1999:511143 CAPLUS
 DOCUMENT NUMBER: 131:170361
 TITLE: Preparation of sulfonamides as inhibitors of activated blood coagulation factor X
 INVENTOR(S): Tawada, Hiroyuki; Itoh, Fumio; Banno, Hiroshi; Terashita, Zenichi
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 187 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9940075	A1	19990812	WO 1999-JP470	19990204
W:	AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 AU 9922988 A1 19990823 AU 1999-22988 19990204
 JP 2000204081 A2 20000725 JP 1999-27053 19990204
 EP 1054005 A1 20001122 EP 1999-902829 19990204
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI
 PRIORITY APPLN. INFO.: JP 1998-24833 19980205
 JP 1998-317205 19981109
 WO 1999-JP470 19990204
 OTHER SOURCE (S): MARPAT 131:170361
 GI



AB The title compds. I [R1 represents a hydrocarbyl or heterocyclic group each optionally substituted; the ring A represents a divalent nitrogen-contg. heterocycle group optionally further substituted; X' represents optionally substituted alkylene; Y represents an optionally substituted divalent cyclic group; X represents a bond or optionally substituted alkylene; and Z represents optionally substituted amino, optionally substituted imidoyl, or an optionally substituted nitrogen-contg. heterocyclic group] are prep'd. Formulations contg. a compd. of this invention are given. In a test for inhibiting activity of title compds. against activated blood coagulation factor X, 1-(4-amidinobenzyl)-4-(6-chloronaphthalene-2-sulfonyl)-2-piperazinone hydrochloride showed IC50 of 0.05 .mu.M.

IT 229646-37-1P 239071-44-4P 239071-46-6P
 239071-47-7P 239071-48-8P 239071-50-2P
 239071-51-3P 239071-52-4P 239071-53-5P
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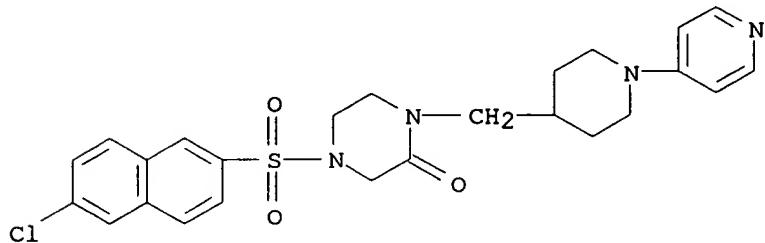
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of sulfonamides as inhibitors of activated blood coagulation factor X)

RN 229646-37-1 CAPLUS

CN Piperazinone,

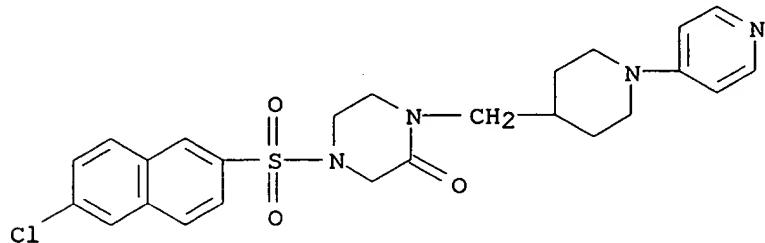
4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239071-44-4 CAPLUS

CN Piperazinone,

4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

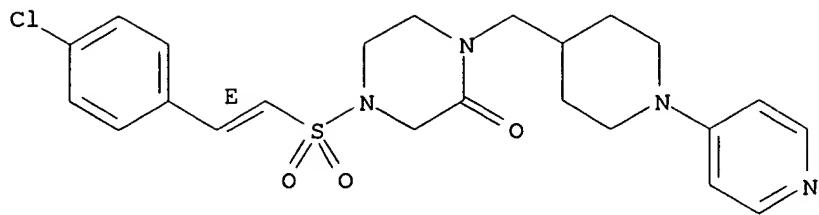


● HCl

RN 239071-46-6 CAPLUS

CN Piperazinone, 4-[(1E)-2-(4-chlorophenyl)ethenylsulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

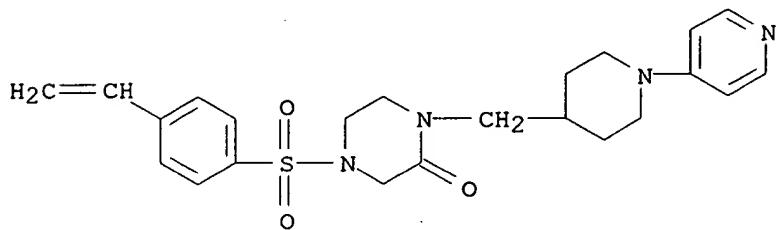
Double bond geometry as shown.



● HCl

RN 239071-47-7 CAPLUS

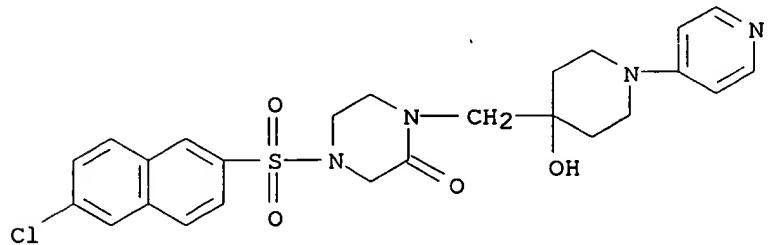
CN Piperazinone, 4-[(4-ethenylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 239071-48-8 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

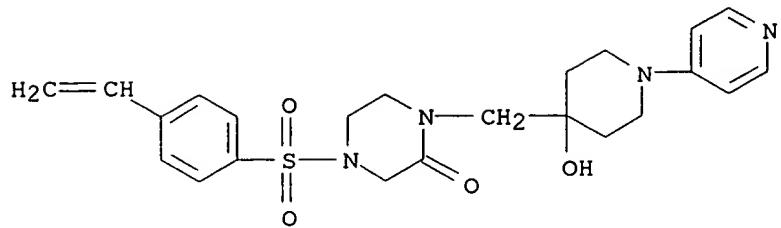


● HCl

RN 239071-50-2 CAPLUS

CN Piperazinone, 4-[(4-ethenylphenyl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-

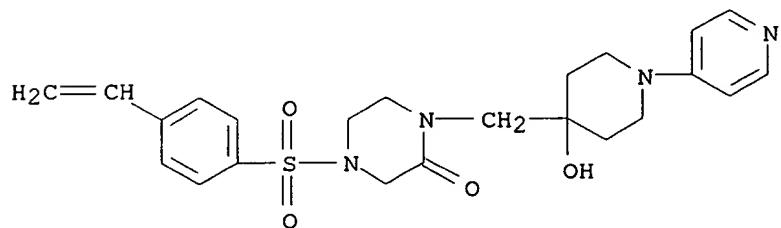
4-piperidinyl]methyl] - (9CI) (CA INDEX NAME)



RN 239071-51-3 CAPLUS

CN Piperazinone,

4-[(4-ethenylphenyl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

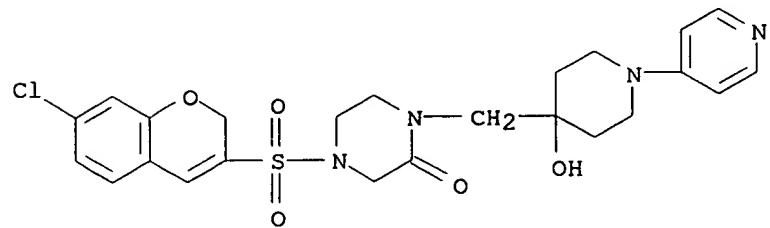


● HCl

RN 239071-52-4 CAPLUS

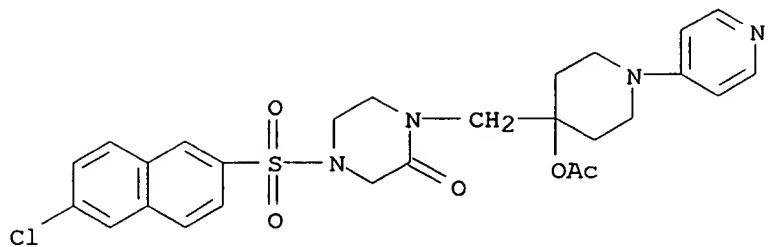
CN Piperazinone,

4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

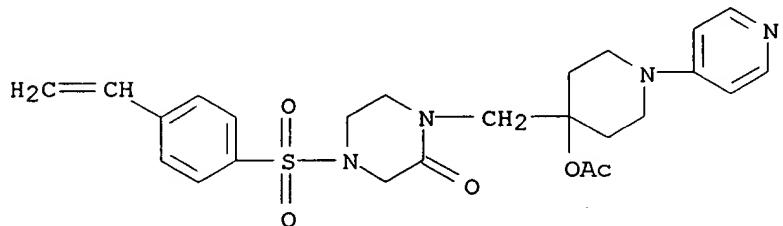


RN 239071-53-5 CAPLUS

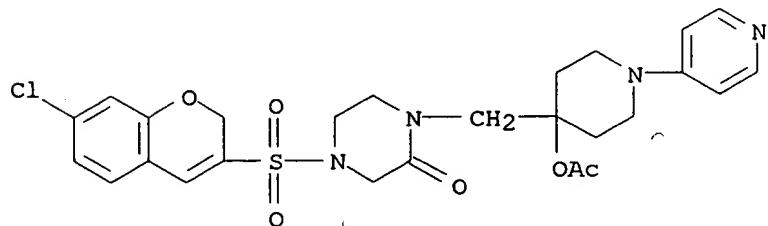
CN Piperazinone, 1-[(4-(acetyloxy)-1-(4-pyridinyl)-4-piperidinyl)methyl]-4-[(6-chloro-2-naphthalenyl)sulfonyl]- (9CI) (CA INDEX NAME)



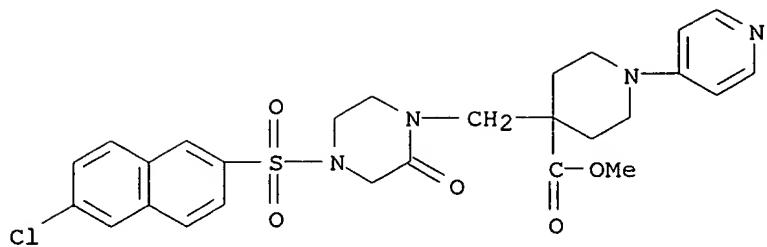
RN 239071-54-6 CAPLUS
 CN Piperazinone, 1-[(4-(acetyloxy)-1-(4-pyridinyl)-4-piperidinyl)methyl]-4-[(4-ethenylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 239071-55-7 CAPLUS
 CN Piperazinone, 1-[(4-(acetyloxy)-1-(4-pyridinyl)-4-piperidinyl)methyl]-4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]- (9CI) (CA INDEX NAME)



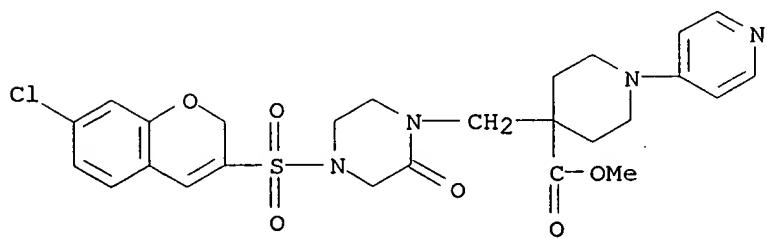
RN 239071-62-6 CAPLUS
 CN 4-Piperidinecarboxylic acid, 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

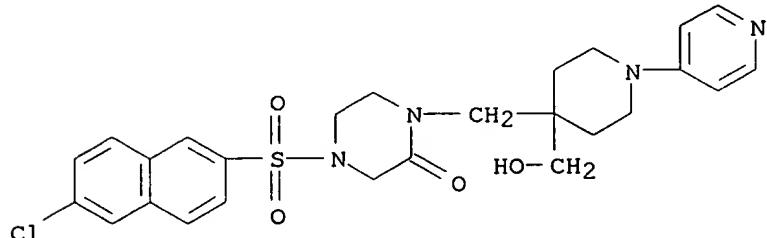
RN 239071-63-7 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[(4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-, methyl ester (9CI) (CA INDEX NAME)



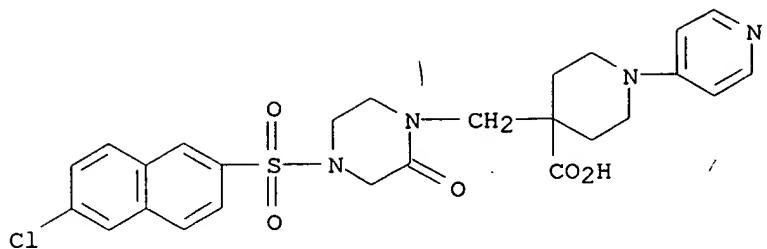
RN 239071-64-8 CAPLUS

CN Piperazinone,
4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(4-(hydroxymethyl)-1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

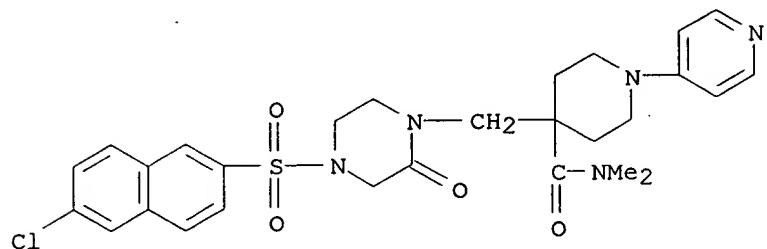


RN 239071-65-9 CAPLUS

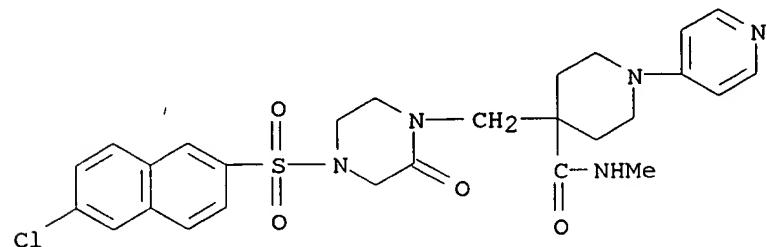
CN 4-Piperidinecarboxylic acid, 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)- (9CI) (CA INDEX NAME)



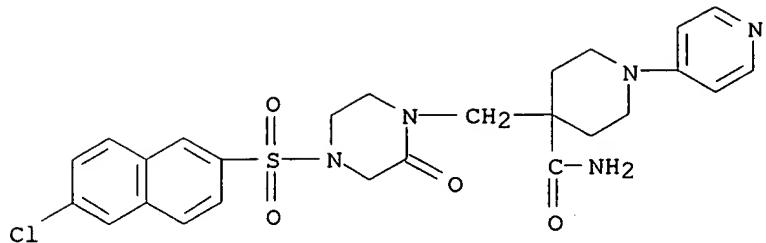
RN 239071-66-0 CAPLUS
 CN 4-Piperidinecarboxamide,
 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-N,N-dimethyl-1-(4-pyridinyl)- (9CI) (CA INDEX NAME)



RN 239071-67-1 CAPLUS
 CN 4-Piperidinecarboxamide,
 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-N-methyl-1-(4-pyridinyl)- (9CI) (CA INDEX NAME)

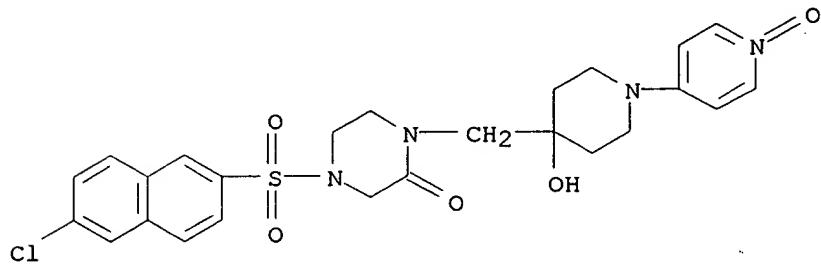


RN 239071-68-2 CAPLUS
 CN 4-Piperidinecarboxamide,
 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)- (9CI) (CA INDEX NAME)



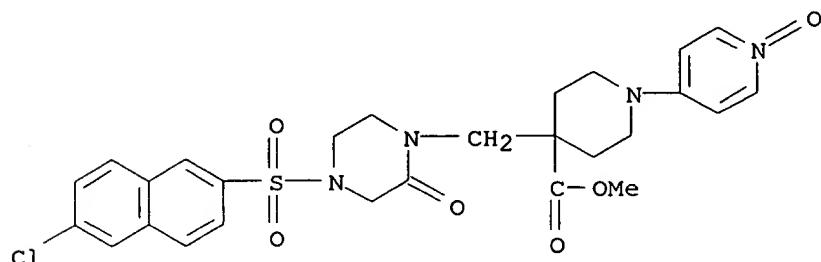
RN 239071-69-3 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(4-hydroxy-1-(1-oxido-4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



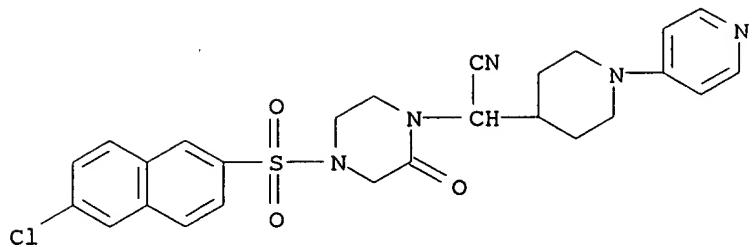
RN 239071-70-6 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(1-oxido-4-pyridinyl)-, methyl ester (9CI) (CA INDEX NAME)



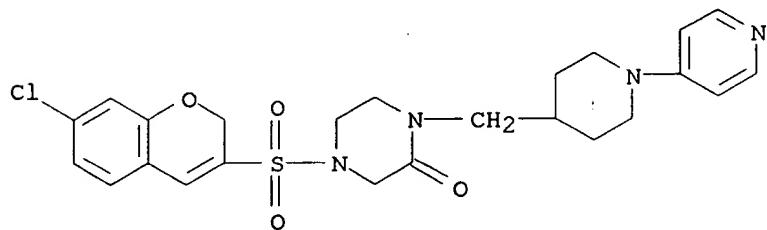
RN 239071-71-7 CAPLUS

CN 1-Piperazineacetonitrile, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-.alpha.-[1-(4-pyridinyl)-4-piperidinyl]- (9CI) (CA INDEX NAME)



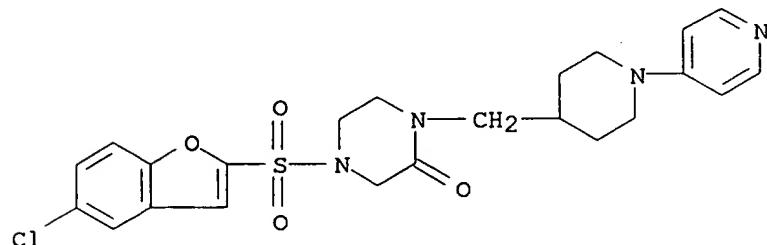
RN 239071-79-5 CAPLUS

CN Piperazinone, 4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

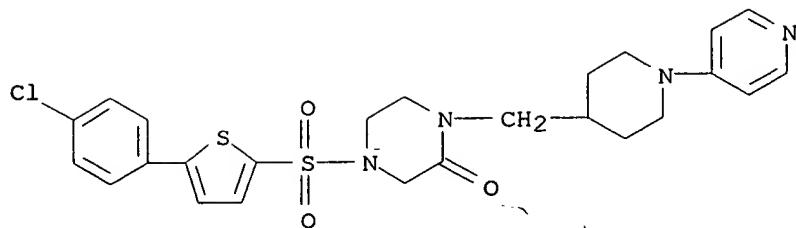
RN 239071-81-9 CAPLUS

CN Piperazinone,
4-[(5-chloro-2-benzofuranyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

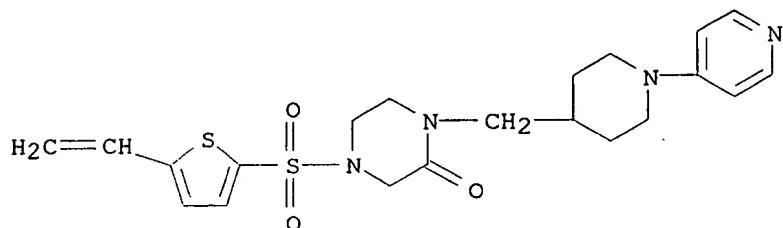
RN 239071-82-0 CAPLUS

CN Piperazinone, 4-[(5-(4-chlorophenyl)-2-thienyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239071-83-1 CAPLUS

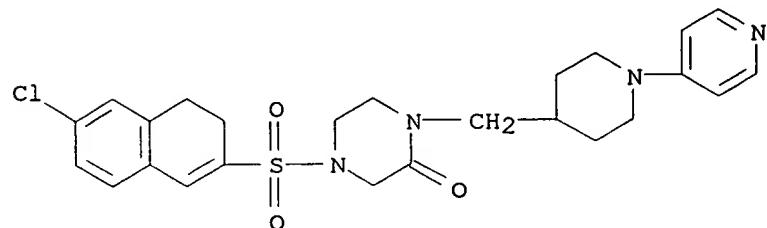
CN Piperazinone, 4-[(5-ethenyl-2-thienyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

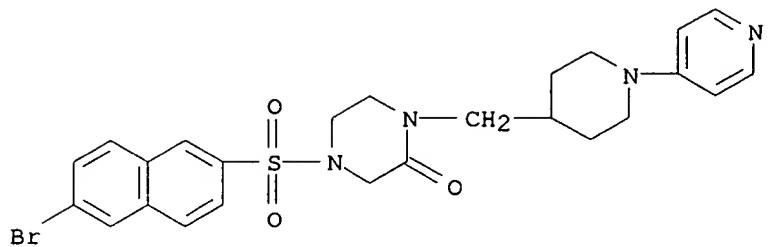
RN 239071-85-3 CAPLUS

CN Piperazinone, 4-[(6-chloro-3,4-dihydro-2-naphthalenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239071-86-4 CAPLUS

CN Piperazinone, 4-[(6-bromo-2-naphthalenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

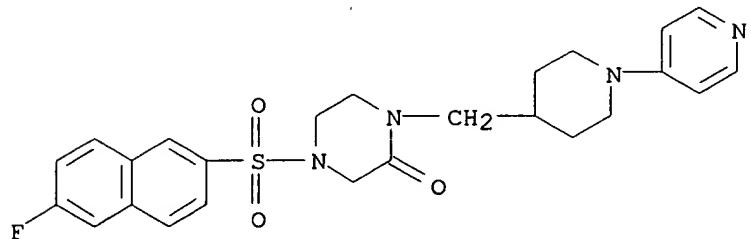


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RN 239071-87-5 CAPLUS

CN Piperazinone,

4-[(6-fluoro-2-naphthalenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

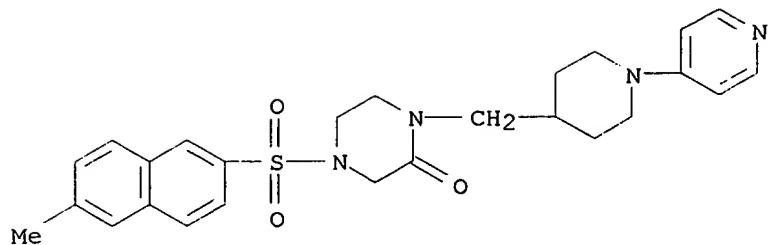


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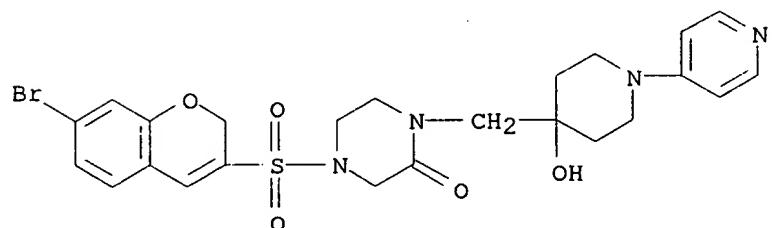
4-[(6-methyl-2-naphthalenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 239071-92-2 CAPLUS

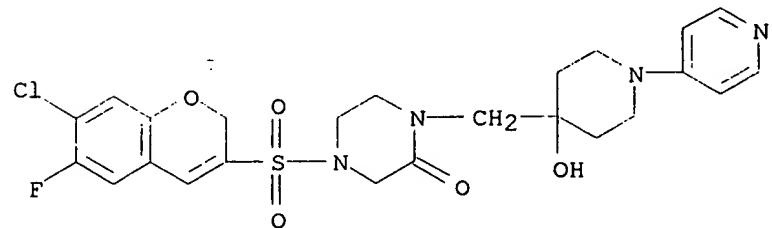
CN Piperazinone, 4-[(7-bromo-2H-1-benzopyran-3-yl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 239071-93-3 CAPLUS

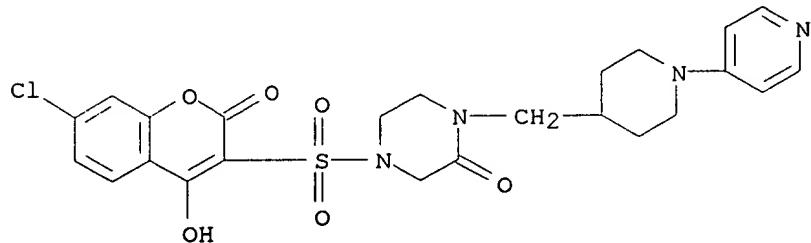
CN Piperazinone, 4-[(7-chloro-6-fluoro-2H-1-benzopyran-3-yl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

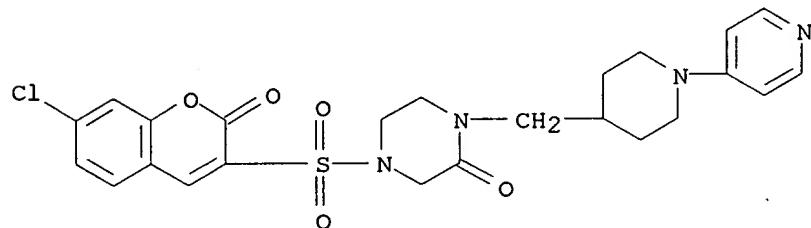
RN 239071-94-4 CAPLUS

CN Piperazinone,

4-[(7-chloro-4-hydroxy-2-oxo-2H-1-benzopyran-3-yl)sulfonyl]-
1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

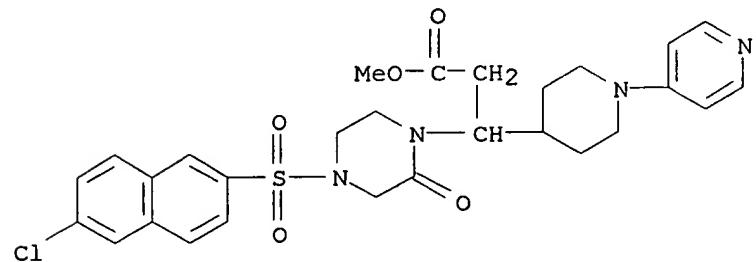
RN 239071-97-7 CAPLUS

CN Piperazinone, 4-[(7-chloro-2-oxo-2H-1-benzopyran-3-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



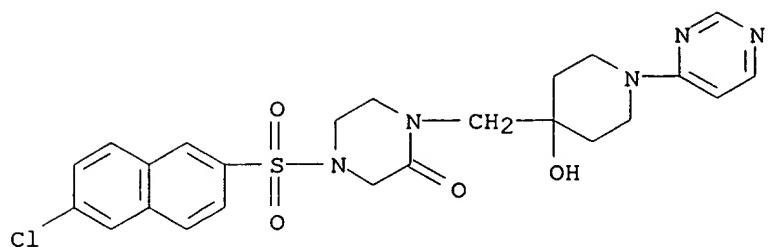
RN 239071-98-8 CAPLUS

CN 1-Piperazinepropanoic acid, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-.beta.-[1-(4-pyridinyl)-4-piperidinyl]-, methyl ester (9CI) (CA INDEX NAME)



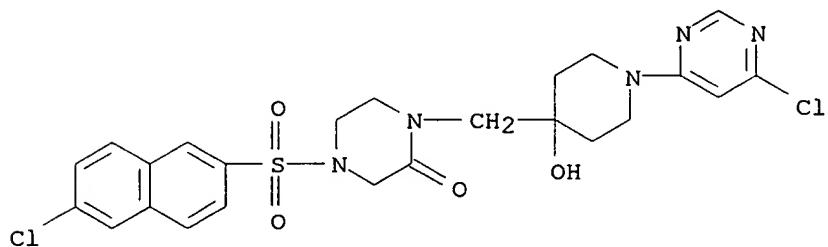
RN 239071-99-9 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(4-hydroxy-1-(4-pyrimidinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



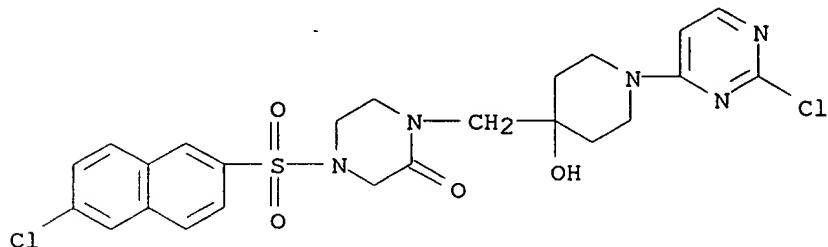
RN 239072-00-5 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(6-chloro-4-pyrimidinyl)-4-hydroxy-4-piperidinyl]methyl]- (9CI) (CA INDEX NAME)



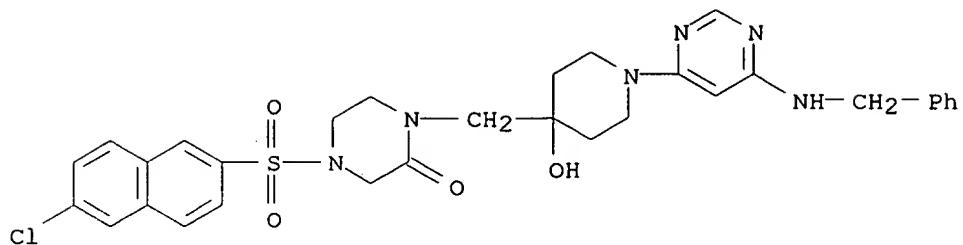
RN 239072-01-6 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[1-(2-chloro-4-pyrimidinyl)-4-hydroxy-4-piperidinyl]methyl]- (9CI) (CA INDEX NAME)



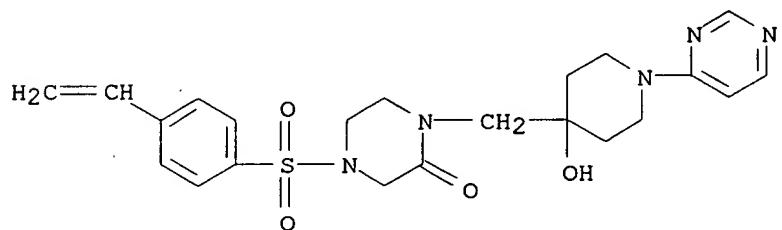
RN 239072-02-7 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[[4-hydroxy-1-[(6-phenylmethyl)amino]-4-pyrimidinyl]-4-piperidinyl]methyl]- (9CI) (CA INDEX NAME)



RN 239072-03-8 CAPLUS

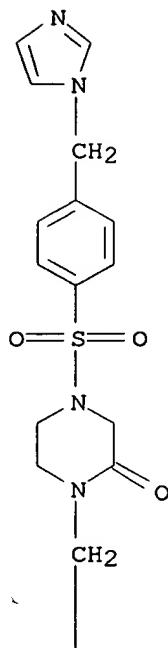
CN Piperazinone, 4-[(4-ethenylphenyl)sulfonyl]-1-[(4-hydroxy-1-(4-pyrimidinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



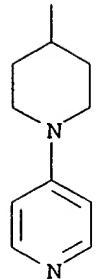
RN 239072-05-0 CAPLUS

CN Piperazinone, 4-[(4-(1H-imidazol-1-ylmethyl)phenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

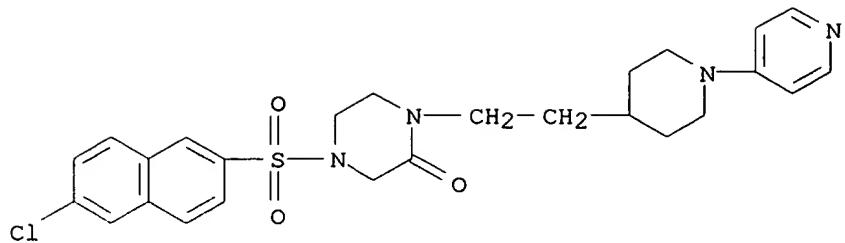


●2 HCl

RN 239072-23-2 CAPLUS

CN Piperazinone,

4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[2-[1-(4-pyridinyl)-4-piperidinyl]ethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

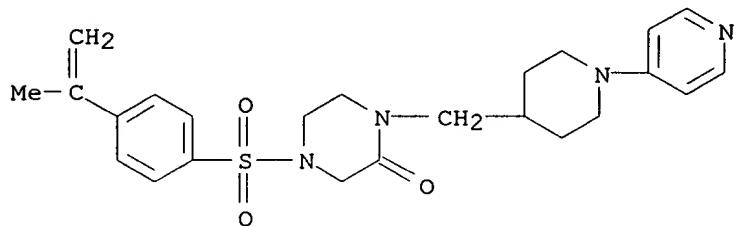


● HCl

RN 239072-29-8 CAPLUS

CN Piperazinone,

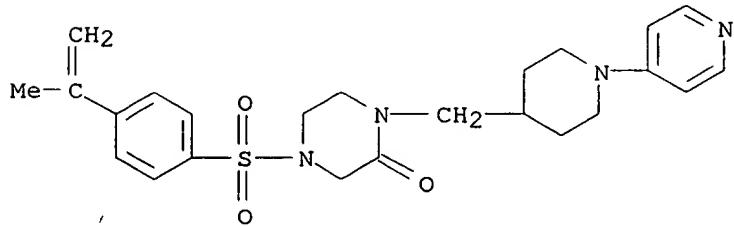
4-[(4-(1-methylethenyl)phenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-30-1 CAPLUS

CN Piperazinone,

4-[(4-(1-methylethenyl)phenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



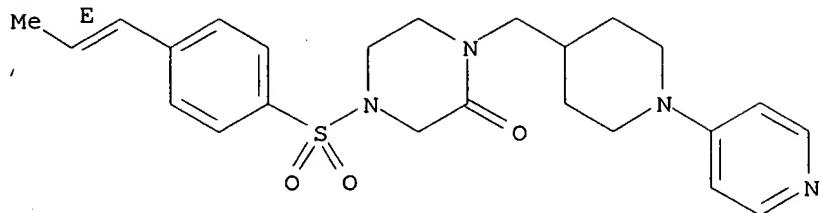
● HCl

RN 239072-31-2 CAPLUS

CN Piperazinone,

4-[(4-(1E)-1-propenylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

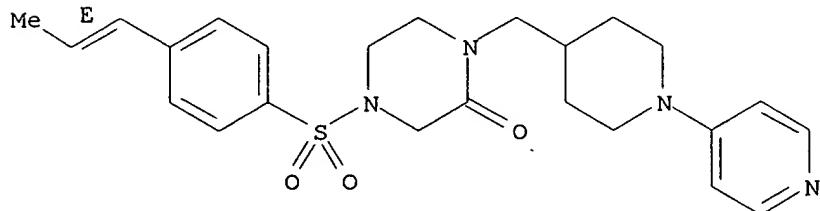
Double bond geometry as shown.



RN 239072-32-3 CAPLUS

CN Piperazinone,
4-[(1E)-1-propenylphenyl]sulfonyl-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

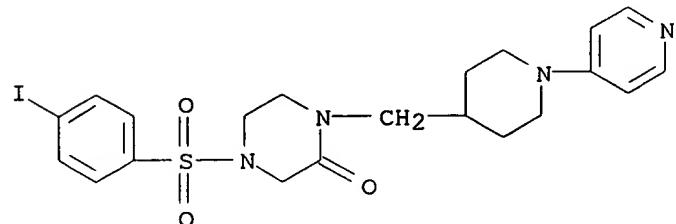
Double bond geometry as shown.



● HCl

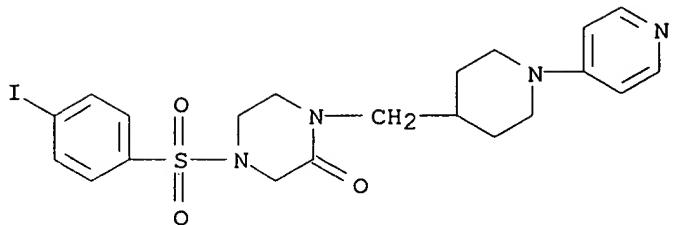
RN 239072-33-4 CAPLUS

CN Piperazinone, 4-[(4-iodophenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-34-5 CAPLUS

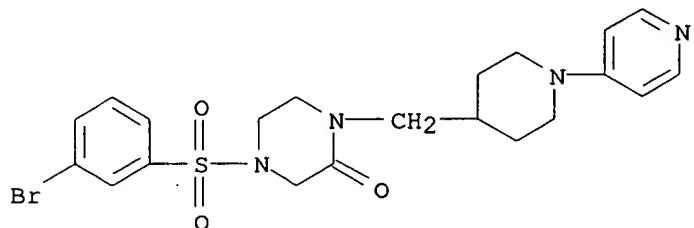
CN Piperazinone, 4-[(4-iodophenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

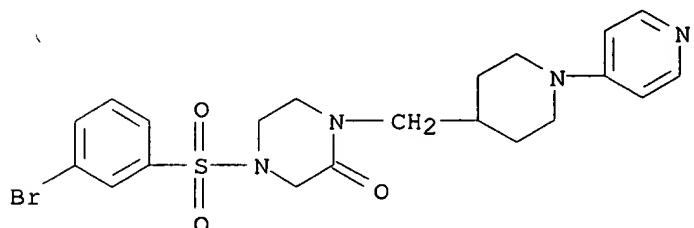
RN 239072-35-6 CAPLUS

CN Piperazinone, 4-[(3-bromophenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-36-7 CAPLUS

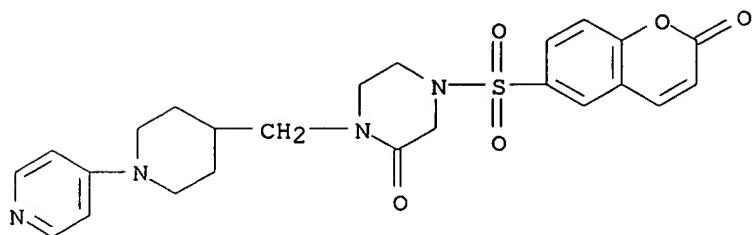
CN Piperazinone, 4-[(3-bromophenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 239072-37-8 CAPLUS

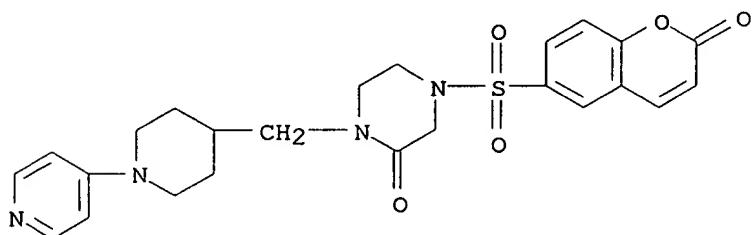
CN Piperazinone,
4-[(2-oxo-2H-1-benzopyran-6-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-38-9 CAPLUS

CN Piperazinone,

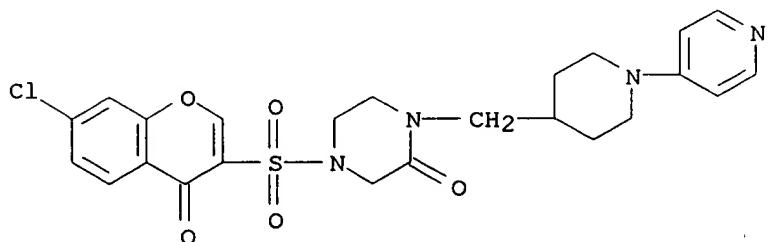
4-[(2-oxo-2H-1-benzopyran-6-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

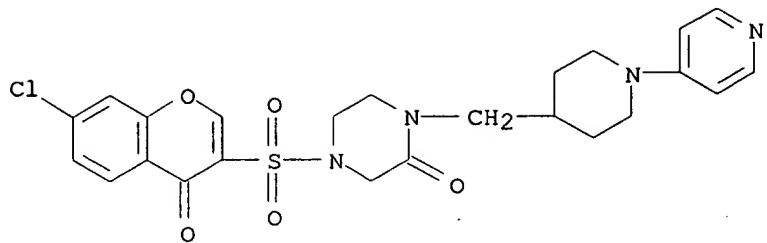
RN 239072-39-0 CAPLUS

CN Piperazinone, 4-[(7-chloro-4-oxo-4H-1-benzopyran-3-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-40-3 CAPLUS

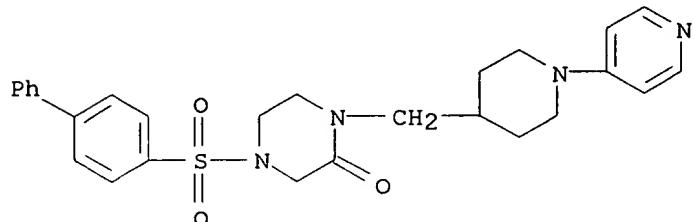
CN Piperazinone, 4-[(7-chloro-4-oxo-4H-1-benzopyran-3-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

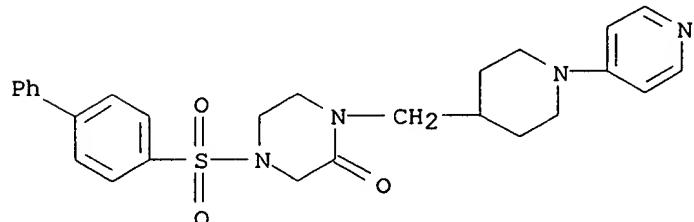
RN 239072-41-4 CAPLUS

CN Piperazinone, 4-((1,1'-biphenyl)-4-ylsulfonyl)-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-42-5 CAPLUS

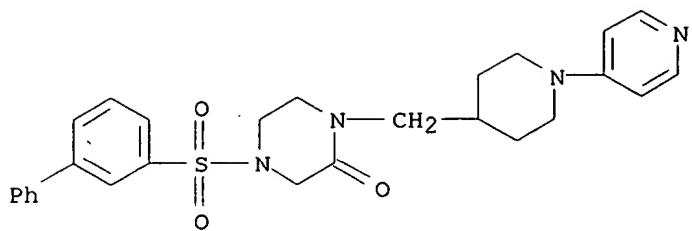
CN Piperazinone, 4-((1,1'-biphenyl)-4-ylsulfonyl)-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 239072-43-6 CAPLUS

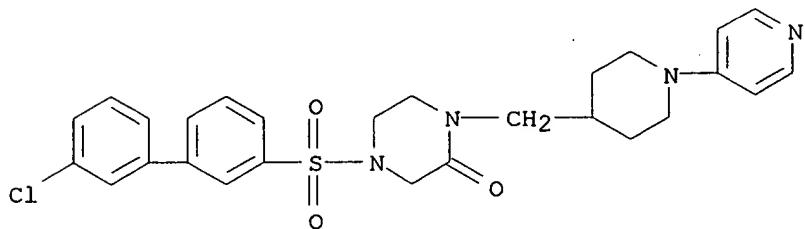
CN Piperazinone, 4-((1,1'-biphenyl)-3-ylsulfonyl)-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 239072-44-7 CAPLUS

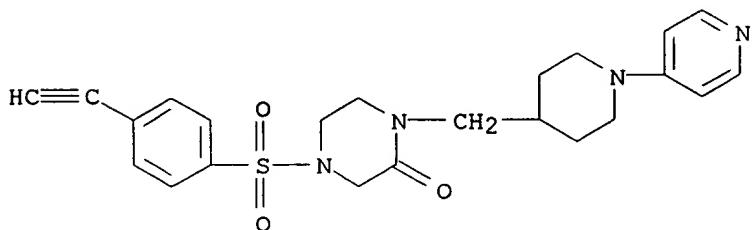
CN Piperazinone, 4-[(3'-chloro[1,1'-biphenyl]-3-yl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

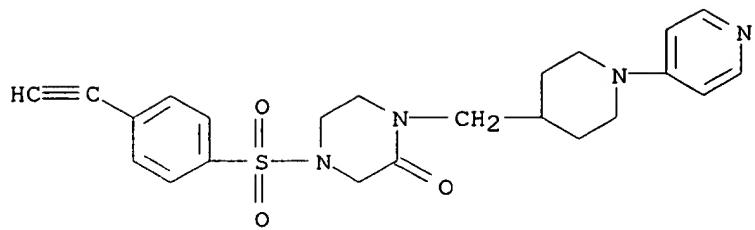
RN 239072-45-8 CAPLUS

CN Piperazinone, 4-[(4-ethynylphenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]methyl]- (9CI) (CA INDEX NAME)



RN 239072-46-9 CAPLUS

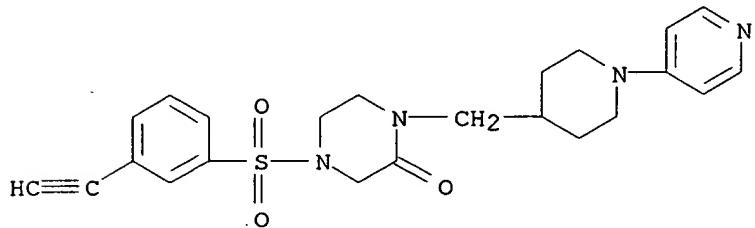
CN Piperazinone, 4-[(4-ethynylphenyl)sulfonyl]-1-[[1-(4-pyridinyl)-4-piperidinyl]methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

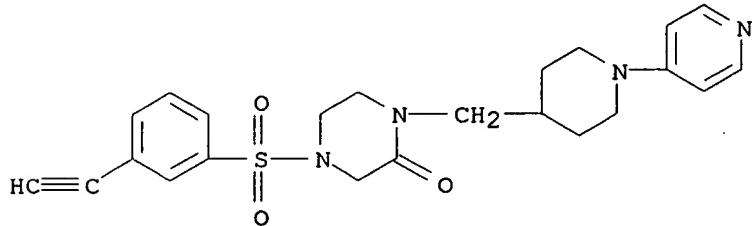
RN 239072-47-0 CAPLUS

CN Piperazinone, 4-[(3-ethynylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-48-1 CAPLUS

CN Piperazinone, 4-[(3-ethynylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

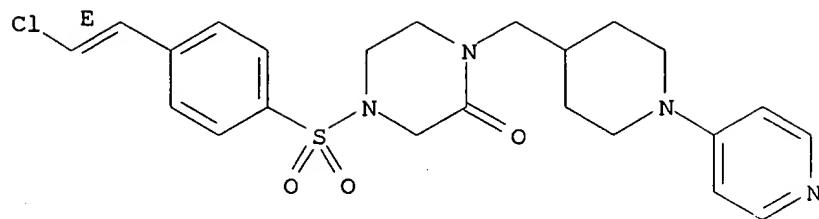


● HCl

RN 239072-49-2 CAPLUS

CN Piperazinone, 4-[(4-[(1E)-2-chloroethenyl]phenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

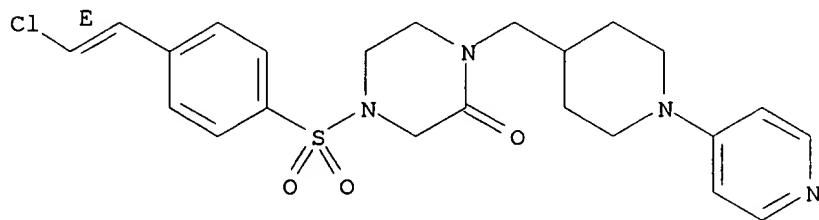
Double bond geometry as shown.



RN 239072-50-5 CAPLUS

CN Piperazinone, 4-[(4-[(1E)-2-chloroethyl]phenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)

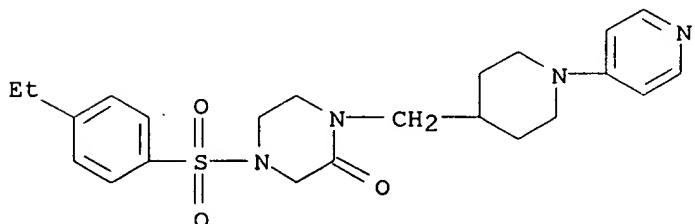
Double bond geometry as shown.



● HCl

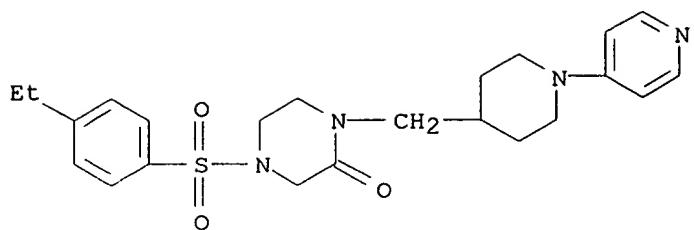
RN 239072-51-6 CAPLUS

CN Piperazinone, 4-[(4-ethylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-52-7 CAPLUS

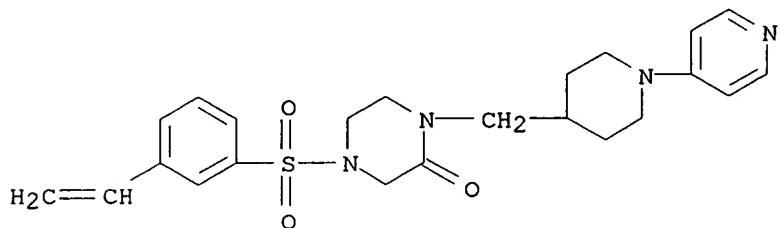
CN Piperazinone, 4-[(4-ethylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

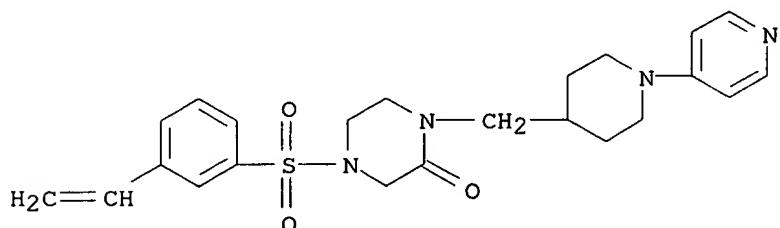
RN 239072-53-8 CAPLUS

CN Piperazinone, 4-[(3-ethenylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-54-9 CAPLUS

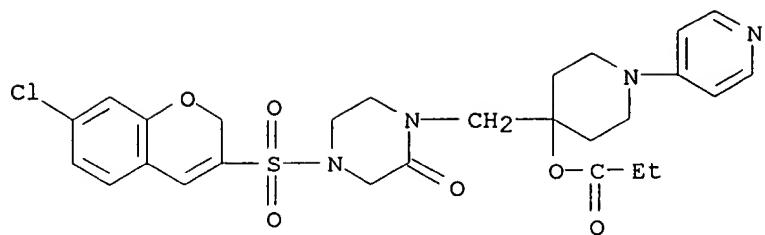
CN Piperazinone, 4-[(3-ethenylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]-, monohydrochloride (9CI) (CA INDEX NAME)



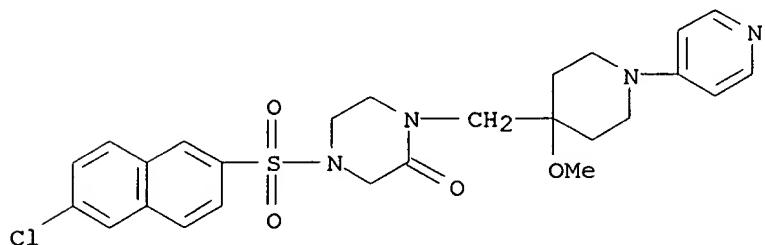
● HCl

RN 239072-57-2 CAPLUS

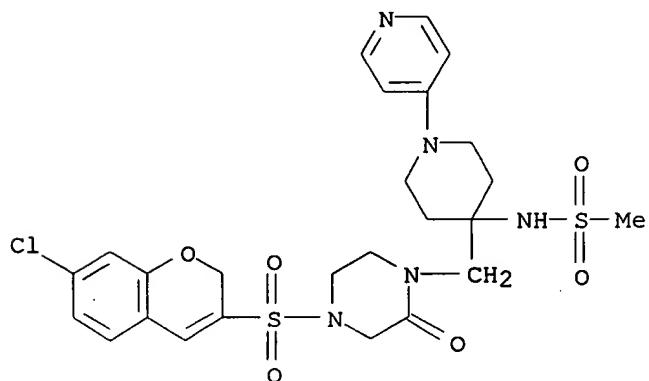
CN Piperazinone, 4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-1-[(4-(1-oxopropoxy)-1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



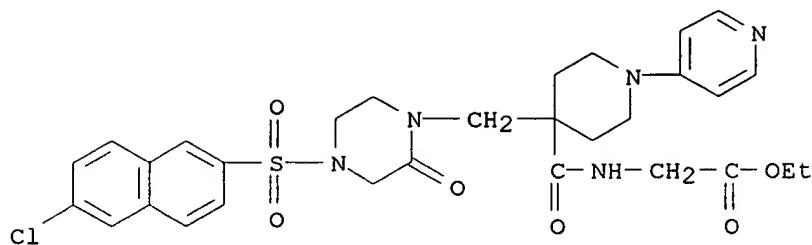
RN 239072-58-3 CAPLUS
 CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(4-methoxy-1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239072-60-7 CAPLUS
 CN Methanesulfonamide, N-[(4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-4-piperidinyl- (9CI) (CA INDEX NAME)

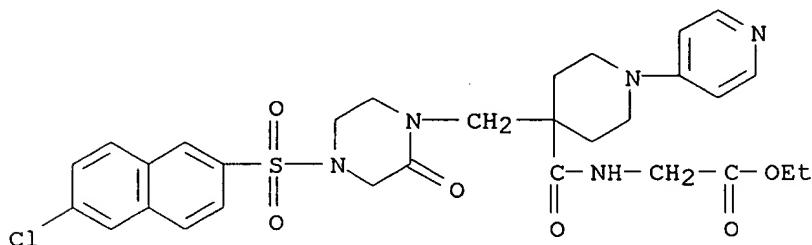


RN 239072-62-9 CAPLUS
 CN Glycine, N-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 239072-63-0 CAPLUS

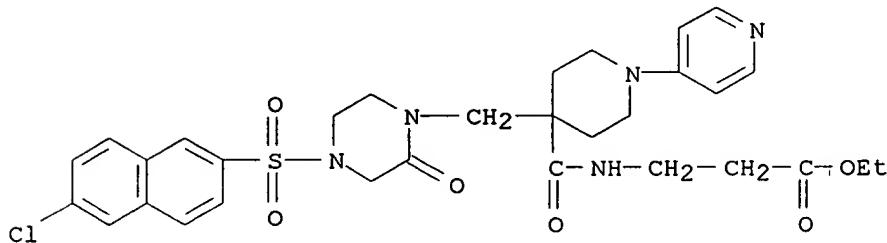
CN Glycine, N-[[4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester,
monohydrochloride (9CI) (CA INDEX NAME)



● HCl

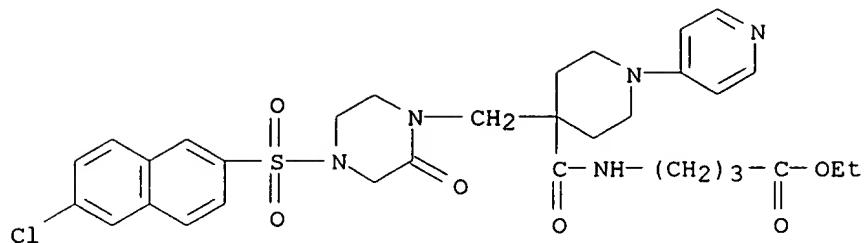
RN 239072-64-1 CAPLUS

CN β -Alanine, N-[[4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



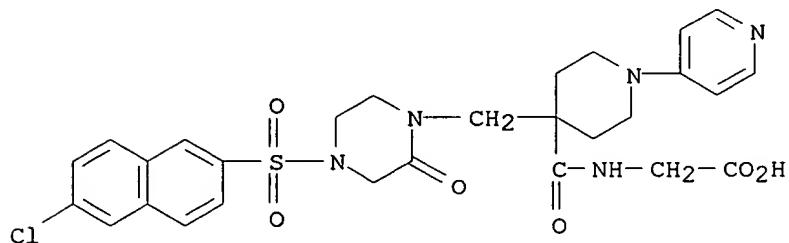
RN 239072-65-2 CAPLUS

CN Butanoic acid, 4-[[[4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



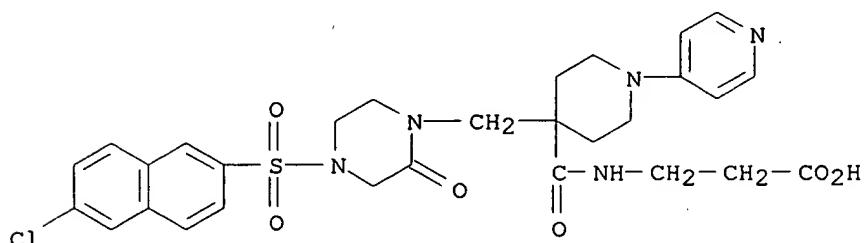
RN 239072-66-3 CAPLUS

CN Glycine, N-[[4-[[4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl]methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)



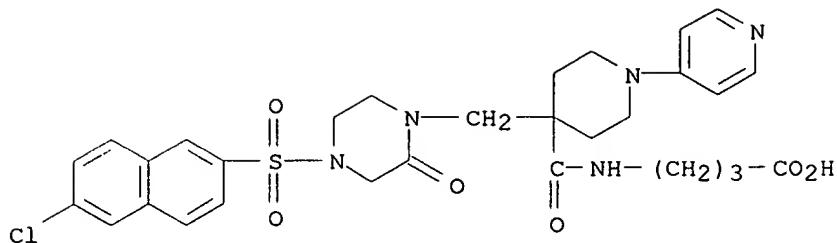
RN 239072-67-4 CAPLUS

KN 239072-37-1 CN1625
CN .beta.-Alanine, N-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl]- (9CI) (CA INDEX NAME)



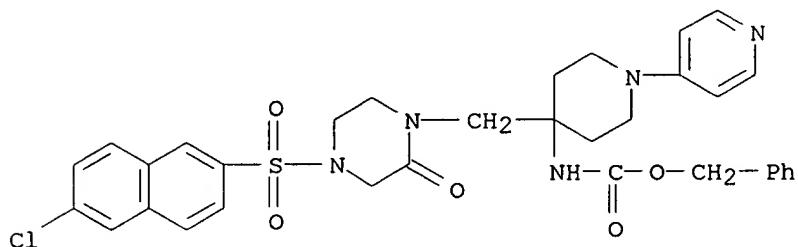
BN 239072-68-5 CAPLUS

RN 235072-88-5 CACCS
CN Butanoic acid, 4-[[4-[[4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl]methyl]-1-(4-pyridinyl)-4-piperidinyl]carbonyl]amino]- (9CI)
(CA INDEX NAME)



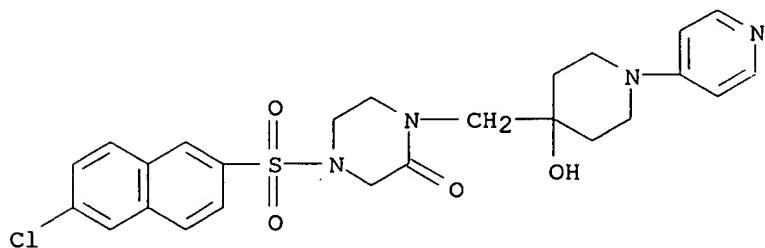
RN 239072-69-6 CAPLUS

CN Carbamic acid, [4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinylmethyl]-1-(4-pyridinyl)-4-piperidinyl-, phenylmethyl ester (9CI) (CA INDEX NAME)



RN 239074-62-5 CAPLUS

CN Piperazinone, 4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[(4-hydroxy-1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



IT 229646-35-9P 239073-05-3P 239073-27-9P

239073-28-0P 239073-46-2P 239073-50-8P

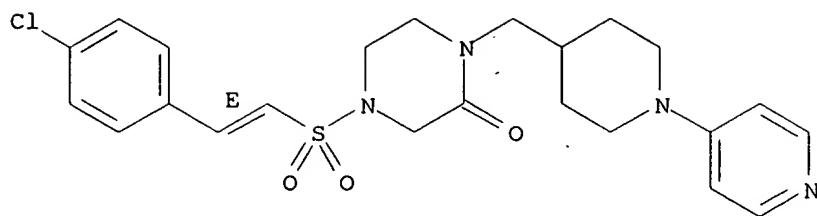
239073-69-9P 239074-19-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of sulfonamides as inhibitors of activated blood coagulation factor X)

RN 229646-35-9 CAPLUS

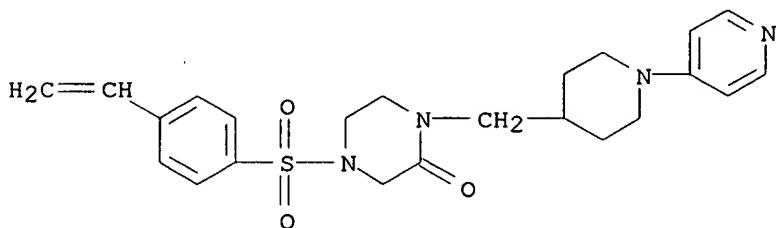
CN Piperazinone, 4-[(1E)-2-(4-chlorophenyl)ethenylsulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



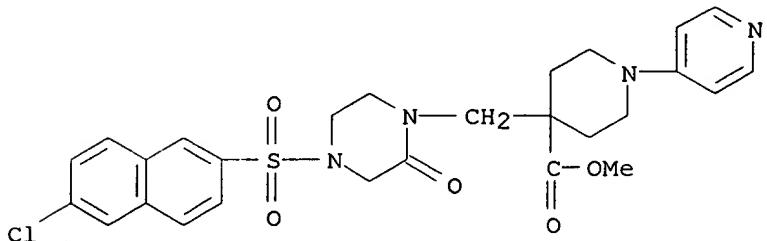
RN 239073-05-3 CAPLUS

CN Piperazinone, 4-[(4-ethenylphenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



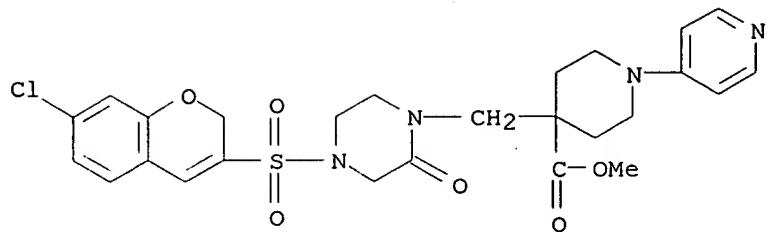
RN 239073-27-9 CAPLUS

CN 4-Piperidinecarboxylic acid, 4-[(4-[(6-chloro-2-naphthalenyl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 239073-28-0 CAPLUS

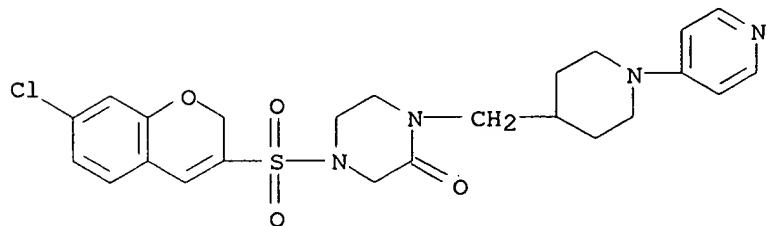
CN 4-Piperidinecarboxylic acid, 4-[(4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-2-oxo-1-piperazinyl)methyl]-1-(4-pyridinyl)-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

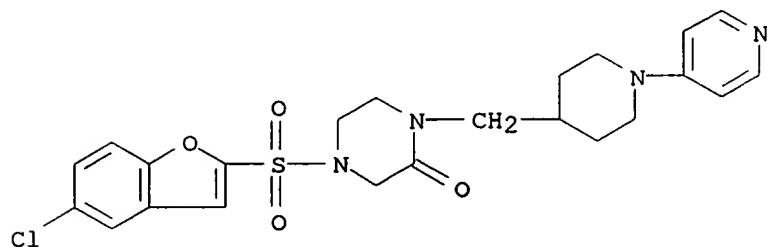
RN 239073-46-2 CAPLUS

CN Piperazinone, 4-[(7-chloro-2H-1-benzopyran-3-yl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



RN 239073-50-8 CAPLUS

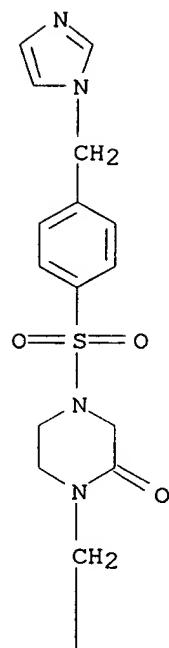
CN Piperazinone,
4-[(5-chloro-2-benzofuranyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)



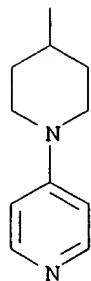
RN 239073-69-9 CAPLUS

CN Piperazinone, 4-[(4-(1H-imidazol-1-ylmethyl)phenyl)sulfonyl]-1-[(1-(4-pyridinyl)-4-piperidinyl)methyl]- (9CI) (CA INDEX NAME)

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RN 239074-19-2 CAPLUS

CN Piperazinone,

4-[(6-chloro-2-naphthalenyl)sulfonyl]-1-[2-[1-(4-pyridinyl)-4-piperidinyl]ethyl] (9CI) (CA INDEX NAME)